

**GENERATOR TYPE
COMMERCIAL NAME**

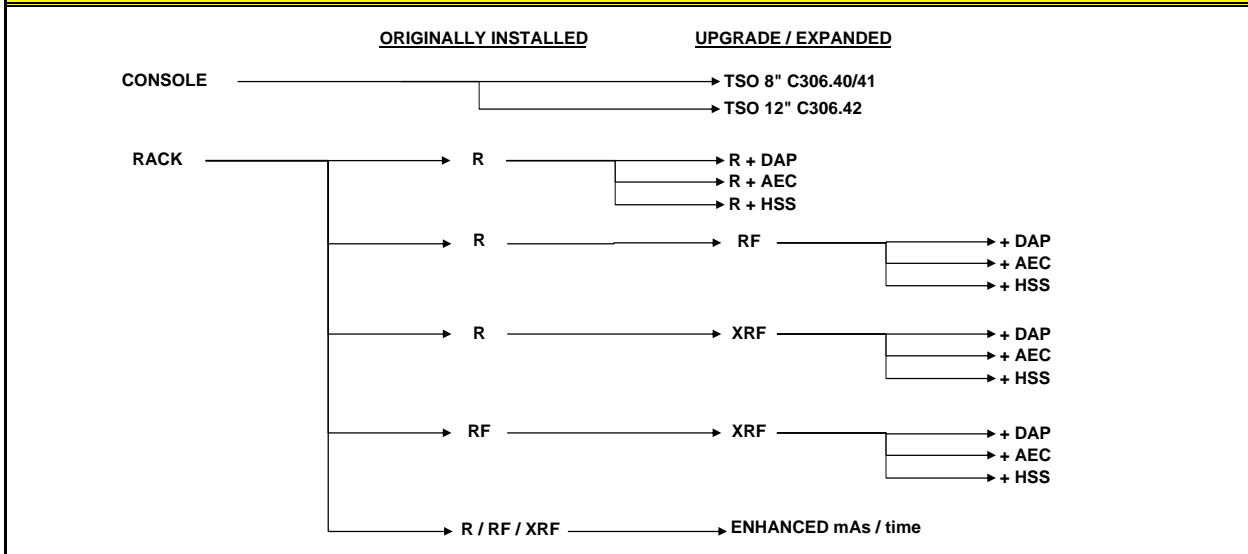
R 306.34	R 306.35	R 306.36	R 306.36	R 306.36
Endeavour 40 R	Endeavour 50 R	Endeavour 65 R	Endeavour 65 RF	Endeavour 65 HRF

1.MANUFACTURER					
1,1	Manufacturer Country	ODEL S.p.A. Italy	ODEL S.p.A. Italy	ODEL S.p.A. Italy	ODEL S.p.A. Italy
1,2	Certification	CE 0051 - Class II b (Dir. 93/42/CEE)	CE 0051 - Class II b (Dir. 93/42/CEE)	CE 0051 - Class II b (Dir. 93/42/CEE)	CE 0051 - Class II b (Dir. 93/42/CEE)
1,3	First installation	2002	2002	2004	2006
2.CHARACTERISTICS					
2,1	Number of Peaks	up to 64000 per second	up to 64000 per second	up to 64000 per second	up to 64000 per second
2,2	Number of Tubes	1 tube	1 tube	1 tube	1 tube
2,3	Rated Power	40 kW	50 kW	65 kW	65 kW
2,4	Maximum Performance mA/kV	500 mA @ 80 kV 400 mA @ 100 kV 320 mA @ 125 kV 250 mA @ 150 kV	630 mA @ 79 kV 500 mA @ 100 kV 400 mA @ 125 kV 320 mA @ 150kV	800 mA @ 81 kV 630 mA @ 103 kV 500 mA @ 130 kV 400 mA @ 150kV	800 mA @ 81 kV 630 mA @ 103 kV 500 mA @ 130 kV 400 mA @ 150kV
2,5	Timing Control	Microprocessor Controlled	Microprocessor Controlled	Microprocessor Controlled	Microprocessor Controlled
2,6	kV Rise Time	1 ms on 75% of kV peak	1 ms on 75% of kV peak	1 ms on 75% of kV peak	1 ms on 75% of kV peak
2,7	kV Fall Time	depending on tube load and HV cables length	depending on tube load and HV cables length	depending on tube load and HV cables length	depending on tube load and HV cables length
2,8	Fluoro to Radio Latency	N/A in R version	N/A in R version	N/A in R version	< 1.5s depending on tube anode
2,9	Anode Thermal Load display	Absolute in kJ and relative in %	Absolute in kJ and relative in %	Absolute in kJ and relative in %	Absolute in kJ and relative in %
2,10	Type	High frequency	High frequency	High frequency	High frequency
2,11	Supply Impedance	0,30 ohm	0,20 ohm	0,20 ohm	0,20 ohm
2,12	Ripple	max 5% from 40 to 150 kV	max 5% from 40 to 150 kV	max 5% from 40 to 150 kV	max 5% from 40 to 150 kV
2,13	Types of Tube Protection	Maximum Load; Thermal Load of Anode; Anode Rotation; Tube Thermal Switch; Filament Over-Heating; Maximum Voltage Protection.	Maximum Load; Thermal Load of Anode; Anode Rotation; Tube Thermal Switch; Filament Over-Heating; Maximum Voltage Protection.	Maximum Load; Thermal Load of Anode; Anode Rotation; Tube Thermal Switch; Filament Over-Heating; Maximum Voltage Protection.	Maximum Load; Thermal Load of Anode; Anode Rotation; Tube Thermal Switch; Filament Over-Heating; Maximum Voltage Protection.
2,14	Work Stations	3 + Direct	3 + Direct	3 + Direct	3 + Direct
3.INTERMITTENT MODE					
3,1	High Voltage	40 .. 150 kV in 1 kV step	40 .. 150 kV in 1 kV step	40 .. 150 kV in 1 kV step	40 .. 150 kV in 1 kV step
3,2	High Voltage Current	10 .. 500 mA (R'10 scale) (29 steps)	10 .. 630 mA (R'10 scale) (30 steps)	10 .. 800 mA (R'10 scale) (31 steps)	10 .. 800 mA (R'10 scale) (31 steps)
3,3	Exposure timer	1 ms .. 6 s (R'10 scale) (36 steps)	1 ms .. 6 s (R'10 scale) (36 steps)	1 ms .. 6 s (R'10 scale) (36 steps)	1 ms .. 6 s (R'10 scale) (36 steps)
3,4	Current Time Product	0,4 .. 600 mAs (R'10 scale)	0,4 .. 600 mAs (R'10 scale)	0,4 .. 600 mAs (R'10 scale)	0,4 .. 600 mAs (R'10 scale)
3,5	Fluoroscopy to Radiography autopermetrization	N/A in R version	N/A in R version	N/A in R version	Yes
3,6	Images per Second	N/A in R version	N/A in R version	N/A in R version	30 images/s
3,7	Anatomical Programming	Yes	Yes	Yes	Yes
3,8	0 Point Technique	N/A in R version	N/A in R version	N/A in R version	Yes
3,9	1 Point Technique (kV)	Yes	Yes	Yes	Yes
3,10	2 Point Technique (kV, mAs)	Yes	Yes	Yes	Yes
3,11	3 Point Technique (kV, mA, s)	Yes	Yes	Yes	Yes
3,12	Automatic Exposure Control	Yes, up to 2 Chambers (Option)	Yes, up to 2 Chambers (Option)	Yes, up to 2 Chambers (Option)	Yes, up to 2 Chambers (Option)
3,13	AEC Chamber Type	Semiconductor or Ionization	Semiconductor or Ionization	Semiconductor or Ionization	Semiconductor or Ionization
3,14	Minimum Exposure Time	1ms	1ms	1ms	1ms
3,15	Configuration Protection	Service Password / Service Software	Service Password / Service Software	Service Password / Service Software	Service Password / Service Software
4.AUTOMATIC EXPOSURE CONTROL					
4,1	AEC Chamber Type	Semiconductor or Ionization	Semiconductor or Ionization	Semiconductor or Ionization	Semiconductor or Ionization
4,2	Adjustable parameters	3 Film/Screen combination, 3 Fields, 7 darkness points; regulation: - 50% + 200%	3 Film/Screen combination, 3 Fields, 7 darkness points; regulation: - 50% + 200%	3 Film/Screen combination, 3 Fields, 7 darkness points; regulation: - 50% + 200%	3 Film/Screen combination, 3 Fields, 7 darkness points; regulation: - 50% + 200%
4,3	Number of Detectors	2 maximum	2 maximum	2 maximum	2 maximum
5.CONTINUOUS MODE					
5,1	High Voltage	N/A in R version	N/A in R version	N/A in R version	40..120 kV
5,2	High Voltage Current	N/A in R version	N/A in R version	N/A in R version	0.5 mA up to 5 mA
5,3	Timer	N/A in R version	N/A in R version	N/A in R version	Yes
5,4	Automatic Fluoroscopy	N/A in R version	N/A in R version	N/A in R version	Yes
5,5	Pulsed Fluoroscopy Mode	N/A in R version	N/A in R version	N/A in R version	No
5,6	Images per Second	N/A in R version	N/A in R version	N/A in R version	30 images/s
6.MECHANICAL CHARACTERISTICS					
6,1	Power Rack Dimensions (WxDxH)	50 X 35 X 89 (110 with HSS) cm	50 X 35 X 89 (110 with HSS) cm	50 X 35 X 89 (110 with HSS) cm	50 X 35 X 89 (110 with HSS) cm
6,2	Power Rack Weight (1 tube)	75 kg	75 kg	75 kg	75 kg
6,3	Power Rack Weight (2 - 3 tubes)	N/A	N/A	N/A	N/A
6,5	Control Console TSO 8" C306.40/41 Dimensions (WxDxH) and Weight	29,5 x 24,5 x 9,5 cm - 5,5 kg	29,5 x 24,5 x 9,5 cm - 5,5 kg	29,5 x 24,5 x 9,5 cm - 5,5 kg	29,5 x 24,5 x 9,5 cm - 5,5 kg
6,6	Control Console TSO 12" C306.42 Dimensions (WxDxH) and Weight	29,5 x 24,5 x 9,5 cm - 6 kg	29,5 x 24,5 x 9,5 cm - 6 kg	29,5 x 24,5 x 9,5 cm - 6 kg	29,5 x 24,5 x 9,5 cm - 6 kg
7.MAINS CHARACTERISTICS					
7,1	Mains Voltage	400 Vac Three-phase	400 Vac Three-phase	400 Vac Three-phase	400 Vac Three-phase
7,2	Mains Current	92 A	108 A	141 A	141 A
7,3	Frequency	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz	50 / 60 Hz
7,4	Maximal Mains Power (active)	54 kW	63 kW	82 kW	82 kW
7,5	Maximal Mains Power (apparent)	60 kVA	75 kVA	98 kVA	98 kVA
7,6	Safety Protections	63A Three-pole Curve C / 30 mA Differential Breaker type B	63A Three-pole Curve C / 30 mA Differential Breaker type B	63A Three-pole Curve C / 30 mA Differential Breaker type B	63A Three-pole Curve C / 30 mA Differential Breaker type B
8. DAP CHARACTERISTICS					
8,1	Dose indication	mGy * cm2	mGy * cm2	mGy * cm2	mGy * cm2

OTHER CHARACTERISTICS

- 1000 mAs / 20 s for industrial environment on request
- No forced ventilation need, no fan inside
- Parallel computer processing for line control and emission safeties
- Free pc service program
- Dedicated digital system interface
- READY-TO-GO driver for ALPHA, ATS, EUROCOLUMBUS, INFIMED, NICAL, X-SITE system

MODULARITY / UPGRADEABILITY



R'10 scale: 1 _ 1,25 _ 1,6 _ 2 _ 2,5 _ 3,2 _ 4 _ 5 _ 6,3 _ 8 _ 10 _

NOTE: Specifications subject to change without notice